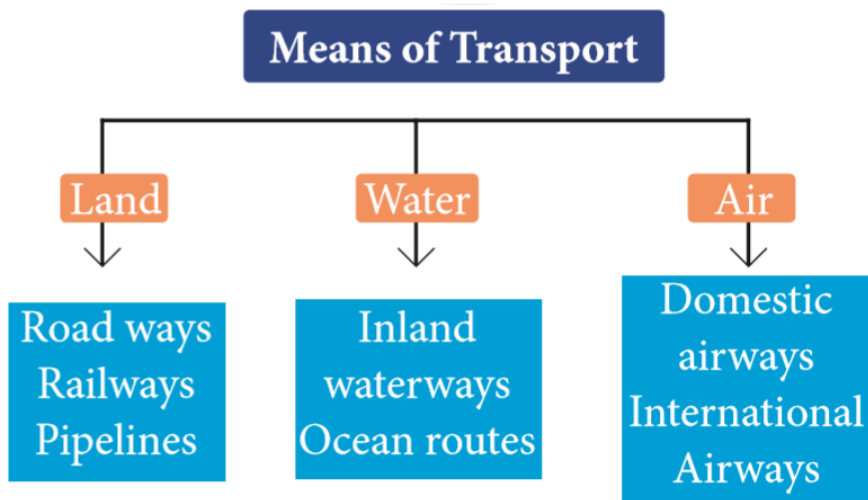


Transport in India



Transport System in India

- ✓ The transport system in India includes Rail transport, Road transport, Air transport, water transport, and portal connectivity. India has one of the largest road networks in the world, the largest railway system in Asia, and the second-largest in the world.
- ✓ 83% Road Transport
- ✓ 9% Rail Transport
- ✓ 6% Air Transport
- ✓ 2% Water Transport



Road Transport in India

- According to the Ministry of Roads, Transport and Highways (MoRTH), there are 599 National Highways in India. Over a period of time, the numbering of National Highways in India has been renewed. The Ministry has released details of National Highways in the country on its official website.
- The total length of National Highways is 132500 Kms.
- Roads happen to be the most popular mode of transportation.
- About 85 percent of passengers and 70 percent of freight traffic are carried by roads every year. Road transport is relatively suitable for shorter distance travel.

Nagpur Plan

The second World War saw a rapid growth in road traffic and this led to the deterioration in the condition of roads. To discuss about improving the condition of roads, the government convened a conference of chief engineers of provinces at Nagpur in 1943. The result of the conference is famous as the Nagpur plan.

The roads were divided into four classes:

- National highways
- State highways
- District roads
- Village roads

Types of Roads in India

- National highways
- The main roads which are constructed and maintained by the Central Government are known as the National Highways.
- These roads are meant for inter-state transport and movement of defence men and material in strategic areas.
- These also connect the state capitals, major cities, important ports, railway junctions, etc.
- India has 142,126 km (88,313 mi) of National Highways as of April 2019. **The National Highways constitute only 2 percent of the total road length but carry 40 percent of the road traffic.**
- The Government of India passed the National Highways Act 1956 to take the responsibility of building and maintaining the National Highways.

State highways

- These are constructed and maintained by state governments (PWDs). They join the state capitals with district headquarters and other important towns.
- These roads are connected to the National Highways.
- **These constitute 4 percent of the total road length in the country.**

District roads

- These roads are the connecting link between District Headquarters and the other important nodes in the district.
- They account for 14 percent of the total road length of the country.

Rural roads

- These roads are vital for providing links in the rural areas.
- About 80 percent of the total road length in India are categorized as rural roads.
- There is regional variation in the density of rural roads because these are influenced by the nature of the terrain.

Name	Responsibility of	Connects
National Highways	Central Government	State capitals
State Highways	State Government	State Capital to District HQ
District roads	Zila Parishad	District HQ to tehsil and Blocks
Village roads	Gram Panchayat	Villages to neighbouring towns

- **Border Roads** – These are the roads built in the Northern and North Eastern Border Areas. These are strategic roads built by the Border Roads Organisation (BRO) which was established in 1960.
- **International Highways** -The country's highway roads connecting with neighboring countries are known as international highways.
- **Expressways** – These are the best roads of India. In these roads the entrance and exit is controlled with the help of ramps. National Expressway Authority of India is in charge of construction and maintenance of expressways in India.

Points (31st march 2019 data)

- Total number of National highway -599
- Total length -132500 km
- According to NHAI maximum highway length(state)

MH>UP>RJ

Fact

- The **longest National Highway is NH44**, which runs between Srinagar in Jammu and Kashmir and Kanyakumari in Tamil Nadu, covering a distance of 3,806 km (2,365 mi).
- The **shortest National Highway is NH766EE**, which spans 4.27 km (2.65 mi), from Hettikeri to Belekeri port in Karnataka.
- The Leh–Manali Highway connecting Leh in Ladakh to Manali in Himachal Pradesh is the world's second highest-altitude motorable highway.
- The first National Highway in India was the old NH-1. It linked the National capital Delhi to Attari in Punjab near Indo-Pak Border. Now as per the new numbering system, NH 1 runs between Union Territories of Jammu and Kashmir and Ladakh.

NH-44





National Highway 44

Highway in India

National Highway 44 is a major north–south National Highway in India, the longest in the country. It passes through the Union Territory of Jammu and Kashmir, in addition to the states of Punjab, Haryana, Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Maharashtra, Telangana, Andhra Pradesh, Karnataka, and Tamil Nadu. [Wikipedia](#)

- Length:** 4,112 km
- Highway system:** Indian National Highway System
- North end:** [Srinagar, Jammu and Kashmir](#)
- South end:** [Kanyakumari, Tamil Nadu](#)

NH-1

Old National Highway Number	New National Highway Number	States/UTs Through which it Passes
NH 1 A and NH 1 D	NH 1	Jammu & Kashmir, and Ladakh



How Indian Highways are numbered?

- All North-South highways will carry EVEN number
- All East-West highways will have ODD numbers
- All major Highways will be a single-digit or double-digit in a number
- Three digits numbered highways are secondary routes or branches of the main highway. For example, 144, 244, 344, etc will be the branches of the main National Highway 44.
- Suffixes A, B, C, D, etc are added to the three-digit sub highways to indicate very small spin-offs or stretches of sub-highways. For example, 966A, 527B, etc.

National Highways Authority of India (NHA)

- National Highways Authority of India was formed under the NHA Act in 1988.
- It is an autonomous organization that looks after the management of the complete network of National Highways in the country.
- National Highways Development Project (NHDP) is a project to upgrade, rehabilitate and widen major highways in India to a higher standard. The project was started in 1998.
- Headquarters of the NHA – New Delhi.
- It operates under the Ministry of Road Transport and Highways.
- NHA signed an MoU with the Indian Space Research Organisation (ISRO) and the North East Centre For Technology Application and Research (NECTAR) in 2016 that allowed the use of spatial technology for highways monitoring.

NH-27

- National Highway 27 (NH 27), an East - West National highway in India that starts in Porbandar and ends in Silchar, the highway passes through the states of Gujarat, Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar, West Bengal, Assam.
- NH-27 was laid and is maintained by Ministry of Road Transport and Highways (MoRTH).
- It is the second longest National Highway (after NH 44) in India and is a part of NS-EW Corridor of NHA.



NH 2

National Highway 2 is a national highway in India that runs from Dibrugarh in Assam to Tuipang in Mizoram.

Old National Highway 2 or Old NH 2, was a major National Highway in India, that connected the states of Delhi, Haryana, Uttar Pradesh, Bihar, Jharkhand and West Bengal.



NH-3

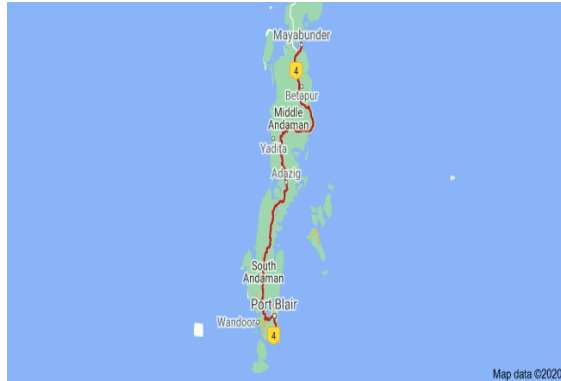
- National Highway 3, or NH 3, is a national highway in India.[1] It starts from Atari adjacent to India-Pakistan border and near Amritsar and terminates at Leh in Ladakh, via Manali in Himachal Pradesh
- After renumbering of all national highways by National Highway Authority of India in 2010, parts of the former NH 1 and NH 70 have been combined with parts of former NH 21 to create the new NH 3.
- Attari - Jalandhar section of old NH 1.
- Jalandhar - Mandi section of old NH 70.
- Mandi - Manali section of old NH 21.



NH 4

National Highway 4, or NH 4, is the major highway in the Indian state of Andaman and Nicobar Islands. It is 230.7 km in length.

Old name: NH 223



What is the new name of NH 4?

- A stretch of national highway from Mumbai to Pune to Hubli to Bangalore to Chennai was earlier called NH 4 before renumbering of national highways in 2010. The former NH 4 is now renumbered as NH 48.

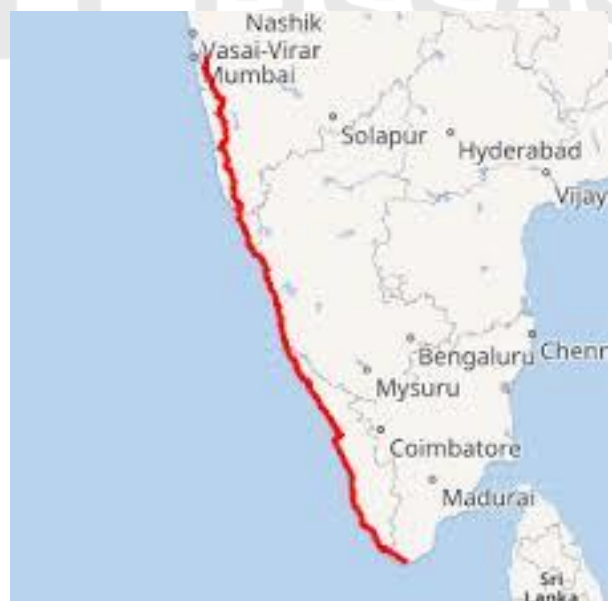


NH 66

National Highway 66, commonly referred to as **NH 66** is a busy National Highway that runs roughly north–south along the western coast of India, parallel to the Western ghaat. **South end:** Kanyakumari, Tamil Nadu

Length: 1,622 km (1,008 mi)

North end: Panvel, Maharashtra



NH-66

National Highway-66 passing through Konkan commonly referred to as Mumbai-Goa NH 66 (erstwhile NH-17) is an important National Highway that runs roughly north–south along the western coast of India, parallel to the Western Ghats.

NH 17 NH 47	NH 66 (Parallel to the Western Ghats)	Maharashtra, Goa, Karnataka, Kerala, and Tamil Nadu
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NH 7

- **National Highway 7 (NH 7)** is a highway connecting Fazilka (Punjab) to Mana (Uttarakhand) in India. It passes through the Indian states of Punjab, Haryana, Himachal Pradesh, and Uttarakhand.
- The NH-7 connects Hindu pilgrim centres of Rishikesh, Devprayag, Rudraprayag, Karnaprayag, Chamoli, Joshimath and Badrinath with Dehradun and Chandigarh. Pilgrims travelling to Sri Hemkunt Sahib take a diversion from Govindghat which lies on NH-7 between Joshimath and Badrinath

Golden Quadrilateral

- The Golden Quadrilateral is a national highway network connecting most of the major industrial, agricultural and cultural centres of India. It forms a quadrilateral connecting the four major metro cities of India, viz., Delhi, Kolkata, Mumbai and Chennai.
- **Length:** 5,846 km
- **Constructed:** January 2012

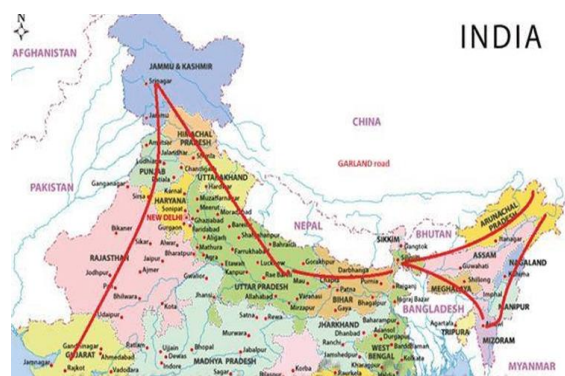




- Only National Highways are used in the Golden Quadrilateral. The four legs use the following National Highways (new numbering system):
- Delhi – Kolkata: NH 44 from Delhi to Agra & NH 19 from Agra to Kolkata
- Delhi – Mumbai – Chennai: NH 48
- Kolkata – Chennai: NH 16
- The completed Golden Quadrilateral passes through 12 states and a union territory

The “Bharat Mala” Project

- The “Bharat Mala” project envisaged across 13 states on a 5300 km stretch – starting from Gujarat & passing through Rajasthan, Punjab, J&K, Uttarakhand, UP, Bihar, Sikkim, Assam, Arunachal Pradesh & ending across the Indo-Myanmar border of Manipur & Mizoram.
- It involves an expenditure of Rs 12000 – 14000 crores during a three-year timeframe.
- Established: 31 July 2015



The “Sagar Mala” Project

- The Sagar Mala project, announced with much fanfare, on Aug 15th, 2003, by PM Vajpayee, remained in limbo during the UPA tenure till it was revived again under Modi’s tutelage.
- The new policy envisages a uniform policy framework for major ports – owned by the center & non-major ports owned by the states to develop a holistic policy encompassing the needs of industrialization trade, tourism & transportation,
- It involves the development of 10 CER (Coastal Economic Region) along with India’s vast 7000 Km coastline freight options – rail, land & inland waterways – for the smooth evacuation of cargo to & from ports.



Sagar Mala project

Government programme

The Sagarmala Programme is an initiative by the government of India to enhance the performance of the country's logistics sector. The programme envisages unlocking the potential of waterways and the coastline to minimize infrastructural investments required to meet these targets. [Wikipedia](#)

Launch year: 2015

Status: Active

Launched by (prime minister): Narendra Modi

Ministry: Ministry of Ports, Shipping and Waterways

Key people: Kailash Agarwal, Bhushan Kumar, IRS(E)

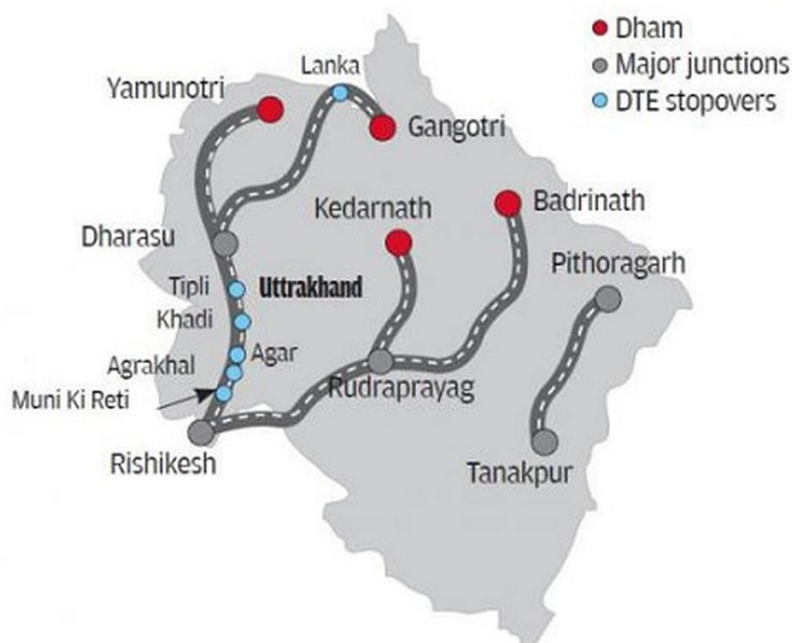


Char Dham Highway

- The total cost of ₹12,000 crores and the foundation stone of the project was laid by Prime Minister Narendra Modi on 27 December 2016 at Parade Ground in Dehradun.

Total Length of the Highway	719
North End	Mana
South End	Rishikesh
Maintained by	National Highway Authority of India
Proposed Routes	Rishikesh–Yamunotri Rishikesh–Gangotri Rishikesh–Kedarnath Rishikesh–Badrinath

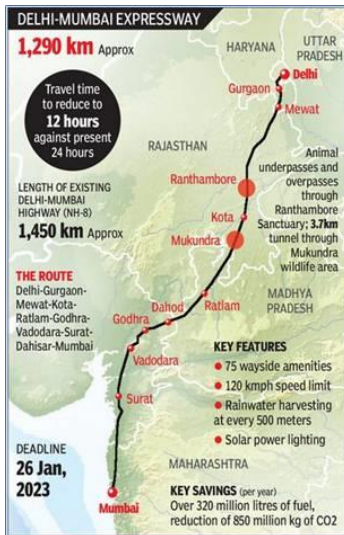
Proposed Char Dham highway



Road Transport

1. The Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched in December 2000.
2. National Highway Development Authority – 1998.
3. Pradhan Mantri Bharat Jodo Pariyojana was started on 14 January, 2004.

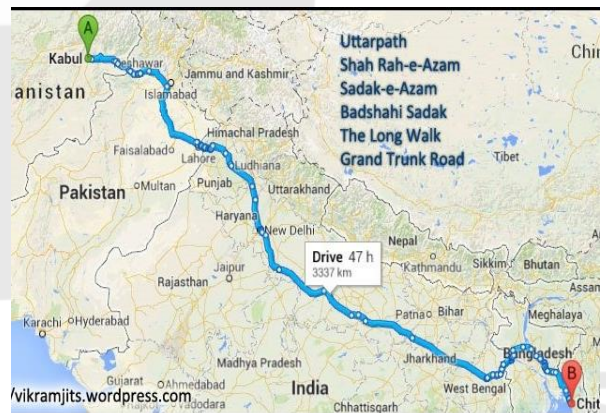
Expressways



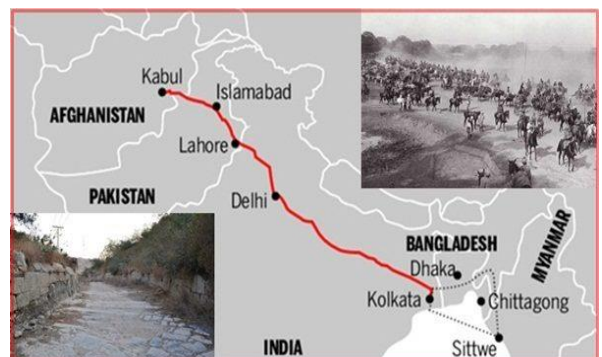
- Expressways are roads having 6 or more lanes. The exit and entry of expressways are controlled. India has the lowest densities of expressways in the world. As of April 2020, there are 26 expressways that are operational, 30 expressways are under various stages of construction, and 27 expressways are under the planning or proposal stage.
- Currently, the longest expressway in India is the Purvanchal Expressway at 340.8 km (211.8 mi) and the widest expressway is the Delhi–Meerut Expressway at 14 lanes.
- Agra-Lucknow Expressway (302 Km)
- Yamuna Expressway (165 Km)
- Outer Ring Road Hyderabad (158 Km)
- Mumbai-Nashik Expressway (150 km)

Grand Trunk Road

- The Grand Trunk Road formerly known as Uttarapath, Sarak-e-Azam, Badshahi Sarak, Sarak-e-Sher Shah is one of Asia's oldest and longest major roads. For at least 2,500 years, it has linked Central Asia to the Indian subcontinent.
- This route started from Kabul in Afghanistan to Chittagong in Bangladesh. It covered Khyber Bypass and connected cities like Rawalpindi, Amritsar, Attari, Delhi, Mathura, Varanasi, Patna, Kolkata, Dhaka and Chittagong.



- The road is still in use in modern free India and is in the form of National and state highways.
- For example the road from Attari border to Jalandhar is called NH3 and from Jalandhar to Agra is called NH44 while from Agra to Kolkata it's called NH-19. The highway is the same route as the Grand Trunk Road or Sadak-e-Sher Shah.



Sher Shah and Uttarapatha:

- Uttarapatha was established by Sher Shah Suri.
- Sher Shah defeated Humayun in 1540 and founded the Sur Dynasty
- The empire spread from Balochistan to Bangladesh. Since Sher Shah gave a lot of importance to trade in his kingdom, the emperor made many reforms in his kingdom so that trade could be done.
- In his time there were many structures like Post Offices, Rest Houses, monuments signifying the Sur dynasty on the route.
- These were called Sarai.



Parcham Classes